Federal Operating Permit
Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1, of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Georgia-Pacific Wood Products LLC
Facility Name:	Georgia-Pacific Wood Products LLC
Facility Location:	11795 Brookneal highway (Hwy 501S) Gladys, Virginia
Registration Number:	30903
Permit Number	SCRO30903

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act (Sections I through IX)

January 6, 2008
Effective Date

January 5, 2013
Expiration Date

_____

T. L. Henderson
Regional Director, South Central Regional Office

Draft/Proposed
Signature Date

This permit amendment document includes:
Table of Contents, 2 pages
Permit Conditions, 52 pages

Table of Contents

I. Facility Information

Permittee
Georgia-Pacific Woods Products LLC
133 Peachtree St. N.E.
Atlanta, GA 30303

Responsible Official
Fransis Wayne Bales
Plant Manager

Facility
Georgia-Pacific Wood Products LLC
11795 Brookneal Highway (501S)
Campbell County

Contact Person
Michael Robertson
Environmental Coordinator
(434) 283-1066

County-Plant Identification Number: 51-031-00163

Facility Description: NAICS 321219 - The facility manufactures a reconstituted wood product known as oriented strandboard (OSB).

II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description (Note 1)	Size/Rated Capacity (Note 2)	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
1200	Fugitive	(2) Log Debarkers [Fugi-King,]	100 $tons_{LOGS}$/hr input, each	None	---	---	Note 3
3500	5600	<u>Wellons/dryer system</u> a. (1) Energy system [Wellons combustor] b. (3) dryers [MEC] and (3) cyclones,	a. 240 x 10^6 BTU/hr heat input, and b. 84 $tons_{FLAKES}$/hr, input	Control equipment in series: Combustor [Wellons], SNCR [Nalco NOxOut, 1997], multicyclone, and ESP[Preciptech]	---	VOC, CO, NOx, PM/PM10, Organic HAPs, and Particulate HAPs	Notes 3 & 4
3752	Standard tank vent (not numbered)	thermal oil storage tank	15, 000 gal.	None	---	---	Note 3

Emission Unit ID	Stack ID	Emission Unit Description (Note 1)	Size/Rated Capacity (Note 2)	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
7000	a. 6800, and 6900, and b. 7890	<u>forming/pressing system</u> a. (1) forming line [Schenck], and b. (1) press [Washington Iron Works]	50,000 $ft^2_{3/8\ inch\ OSB}$/hr, output	a. 6800 fabric filter [MAC 120 WMCF 494-435], and 6900 fabric filter [MAC 120 WMCF 361-306], and b. 6-canister Regenerative Thermal Oxidizer/Thermal Catalytic Oxidizer (RTO/TCO) [Smith Engineering]	---	a. PM/PM10 and b. VOC, PM/PM10, Organic HAPs	Note 3
8000	8900	<u>trim system</u> [Globe]	60,000 $ft^2_{3/8\ inch\ OSB}$/hr, output	Fabric filter [MAC 120 WMCF 361-306]	---	PM/PM10	Note 3

Emission Unit ID	Stack ID	Emission Unit Description (Note 1)	Size/Rated Capacity (Note 2)	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
9000	a. 9500 b. 9600, and c. 8830, and 8835	<u>finishing system</u> a. (1) tongue & groove machine [Globe], b. (1) sander [Globe], and c. (1) spray booth [Binks]	50,000 $ft^2_{3/8\ inch\ OSB}$/hr, output	a. fabric filter [MAC 120 WMCF 361-306], b. high efficiency cyclone [Fisher-Klosterman XQ030-15], and c. paint arrest filters [Binks]	---	PM/PM10	Note 3
9900	a. 8950 and b. fugitives	<u>General plant</u> a. Dry Fuel transfer [Fisher-Klosterman] b. storage piles	424.4 X 10^6 $ft^2_{3/8\ inch\ OSB}$/yr, output	a. high efficiency cyclone [Fisher-Klosterman XQ030-15], and b. none	---	PM/PM10	Note 3

Notes:

1. All Construction dates are 1995, unless otherwise noted.
2. The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement. Rated capacities which are stated in units of tons per hour are for tons of "green wood," unless otherwise noted. For the purposes of this permit, green wood is assumed to contain 50% moisture.
3. Permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.
4. Emission unit 3500 includes (3) (15 x 10^6 BTU/hr) in-line natural gas burners. One burner was installed upstream of each dryer. These burners were installed in 1998, but, due to their rated capacity, they were exempt from NSR permitting requirements.

III. Process Equipment Requirements

A. Emission unit 1200, (2) Log Debarkers

1. **Limitations for the Log Debarkers:**
Visible emissions from the log debarkers shall not exceed ten percent (10%) opacity. (9 VAC 5-80-110, and Condition 43 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

2. **Monitoring for the Log Debarkers:**
At least one time per calendar week an observation of the presence of visible emissions from the two Log Debarkers shall be made. The presence of visible emissions shall require the permittee to:

   a. take timely corrective action such that the Log Debarkers resume operation with no visible emissions, or,

   b. conduct a visible emission evaluation (VEE) on the Log Debarkers in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the Log Debarkers are 10 percent opacity or less. If any of the observations exceed the opacity limitation of 10 percent, the observation period shall continue until a total of sixty (60) minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the Log Debarkers resume operation within the 10 percent opacity limit.

   c. If visible emissions inspections conducted during twelve (12) consecutive weeks show no visible emissions for the debarkers, the permittee may reduce the monitoring frequency to once per month. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week.

   The permittee shall maintain a Log Debarker visible emissions observation log to demonstrate compliance. The log shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the Log Debarkers have not been operated for any period during the week it shall be noted in the log book.
   (9 VAC 5-80-110 E, 9 VAC 5-80-110 K)

3. **Recordkeeping for the Log Debarkers:**
The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to, the observation log required by Condition III.A.2 of this permit. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110)

4. **Reporting for the Log Debarkers:**
The reporting requirements of Condition IX.E of this permit apply.

For the following listed applicable requirement type, there are no unit specific requirements for Emission Unit 1200: **Testing**

B. Emission unit 3500, Wellons/dryer system

The Wellons/dryer system includes, but is not limited to, (1) Energy system (including a backup thermal oil heater), (3) dryers, and (3) cyclones.

1. **Limitations for the Wellons/dryer system**
   a. Carbon monoxide (CO), and volatile organic compounds (VOC) emissions from the flake dryers shall be controlled by the Energy System. The "Energy System" is defined as having two (2) sections. The "heat producing section" is defined as the four (4) fuel cells and the upper combustion zone. The "energy conservation section" is defined as the blend chamber and the downstream ductwork ending at the inlet to the first primary air heater. The Energy System shall be provided with adequate access for inspection. The heat producing section of the Energy System shall be equipped with a device for the continuous measurement and recording of the temperature in the upper combustion zone. For the purposes of this permit, the temperature in the upper combustion zone is defined as the "master" temperature. The energy conservation section of the Energy System shall be equipped with a device for the continuous measurement and recording of the temperature at the inlet to the first primary air heater. For the purposes of this permit, the temperature in the energy conservation section is defined as the "blend" temperature. For the purposes of this condition, "continuous" shall mean that whenever the Energy System is in operation, the monitoring system shall be monitoring except during periods of monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, and the monitoring system shall be capable of completing at least one cycle of operation (i.e., measuring and recording) every 15 minutes.
   (9 VAC 5-80-110, and Condition 3 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

   b. Particulate emissions from the Energy System shall be controlled by multicyclones connected in parallel and followed by an Electrostatic Precipitator (ESP). Each multicyclone and the ESP shall be provided with adequate access for inspection. An annual inspection of all internal and external components of each multicyclone shall be conducted by the permittee to insure structural integrity. Each multicyclone shall be equipped with a device to continuously measure differential pressure drop across the multicyclone. The ESP shall be equipped with a device for the continuous measurement of primary and secondary current and voltage (by field) across the ESP. For the purposes of this condition, "continuously" or "continuous" shall mean that whenever the Energy System is in operation, the monitoring system shall be

monitoring except during periods of monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, and the monitoring system shall be capable of completing at least one cycle of operation (i.e., measuring) every 15 minutes.
(9 VAC 5-80-110, and Condition 4 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

c. The controlling temperature shall be maintained at 1,400^{O}F when any dryer is processing flakes. If the blend damper is closed, the controlling temperature is the master temperature, otherwise, the controlling temperature is the blend temperature. The controlling temperature shall be an hourly average, calculated on a 15 minute rolling basis. The exhaust gas in the energy conservation section shall have a minimum one (1) second retention time. The maximum exhaust gas flow in the energy conservation section shall be 389,340 acfm (actual cubic feet per minute) at 1,400^{O} F. The energy conservation section shall be constructed so as to allow for flow rate testing and monitoring upon reasonable notice at any time, using appropriate methods. Test ports shall be provided at the appropriate locations.
(9 VAC 5-80-110, and Condition 5 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

d. The approved fuels for the Energy System are on-site generated wood, purchased wood, and on-site generated wastes. "On-site generated wood" is defined as wood feed stock, bark, resinated and unresinated saw dusts, sander dust, and other wood wastes capable of being hogged. This definition does not include wood contaminated with paints, plastics, finishing material or chemical treatments other than facility process resins, waxes, and edge sealers. "Purchased wood" is defined as clean wood and wood wastes which do not contain chemical treatments nor have affixed thereto paint and/or finishing materials or paper or plastic laminates or other foreign materials which might emit toxic air pollutants when burned. "On-site generated wastes" are defined as press vent cleanup wastes, paint solids collected by the spray booth, waste resin and wax, oily water, paper products, and hydraulic oil wastes. "Oily water" is defined as oil from the mobile equipment wash water which is collected and separated in the area's oil/water separator. "Paper products" are defined as cardboard and office paper. A change in the fuels may require a permit to modify and operate.
(9 VAC 5-80-110, and Condition 13 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

e. The approved fuels for the backup thermal oil heater are natural gas and propane. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-110, and Condition 14 of the NSR permit issued September 17, 1997, as amended April 10, 1998,December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

f. The approved fuel for the in-line burners is natural gas and propane. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-110 C)

g. The Energy System shall consume no more than 225,800 tons per year of wood, 13 tons per year of press vent cleanup wastes, 44 tons per year of paint solids, 31.2 tons per year of waste resin and wax, 1,800 gallons per year of oily water, 3.6 tons per year of paper products, and 35 tons per year of hydraulic oil wastes, each calculated monthly as the sum of each consecutive 12 month period.
(9 VAC 5-80-110, and Condition 16 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

h. Except as specified in this permit, the Energy System is to be operated in compliance with Federal emissions requirements under 40 CFR 60, Subpart Db.
(9 VAC 5-80-110, and Condition 17 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

i. Visible emissions from the Energy System shall not exceed 10 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 5-80-110, 40 CFR 60.43b and Condition 41 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

j. Emissions from the operation of the Wellons/dryer system shall not exceed the limits specified below:

	lb/MMBtu	lbs/hr	tons/yr*	Citations
Particulate Matter	0.07	---	71.3	40 CFR 60.43b
PM-10	0.07	---	71.3	---
Sulfur Dioxide	---	5.33	22.6	---
Nitrogen Oxides (as NO_2)	0.20** (3 hr rolling average)	---	203.7	---
Carbon Monoxide	0.20	---	203.7	---
Volatile Organic Compounds	---	5.89	25.0	---

* Tons/yr calculated monthly as the sum of each consecutive 12 month period.
** The NOx short term emission limit applies at all times except start-up and shutdown.

(9 VAC 5-80-110, and Condition 34 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, and August 28, December 3, 2002, June 30, 2003, and January 22, 2007.)

k. See section IV of this permit for PCWP MACT limitations for the Wellons/dryer system.
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

2. **Monitoring for the Wellons/dryer system**

a. A continuous emission monitor shall be installed on the Energy System stack to measure and record opacity. The continuous emissions monitoring system shall conform to the design specifications stipulated in 40 CFR 60, Appendix B, Performance Specification 1. The monitoring system shall be installed, maintained, evaluated, calibrated and operated in accordance with 40 CFR 60.13, 40 CFR 60 Subpart Db and 40 CFR 60, Appendix B. During all periods of facility operation, the monitoring system shall be in continuous operation except for system breakdowns, repairs, calibration checks, and zero and span adjustments.

After the initial performance evaluation, the permittee shall conduct opacity monitoring system audits, on a regularly scheduled basis, to demonstrate compliance with the calibration error specification (40 CFR 60, Appendix B, Performance Specification 1).

In no case shall the length of time between audits exceed twelve months. A 30-day notification prior to each scheduled audit shall be submitted to the South Central Regional Office.

The permittee shall submit a report of monitored excess emissions and monitor performance semiannually. The reports are to be submitted, postmarked no later than 30 calendar days after the end of each semiannual period, to the South Central Regional Office.

(9 VAC 5-80-110, , 40 CFR 60.48b, 40 CFR 60.7(c), 40 CFR 60.7(d), and Condition 31 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

b. See section IV of this permit for PCWP MACT monitoring requirements for the Wellons/dryer system.
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

c. The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the Wellons Energy System controlling VOC and CO from the flake drying process. For the purposes of this permit, VOC and CO from the flake drying process is referred to as "PSEU A;" with the acronym PSEU standing for Pollutant

Specific Emissions Unit. The approved monitoring plan shall be the attached CAM Plan (Attachment A) or the most recent revision to that plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition V.7; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition V.8; or (3) otherwise approved by the DEQ conforming with Condition V.1, including, but not limited to, changes initiated by DEQ.
(9 VAC 5-80-110 E and 40 CFR 64.6(c))

d. The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the urea injection system controlling NOx from the Wellons energy system. For the purposes of this permit, NOx from the Wellons energy system is referred to as "PSEU B." The approved monitoring plan shall be the attached CAM Plan (Attachment B) or the most recent revision to that plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition V.7; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition V.8; or (3) otherwise approved by the DEQ conforming with Condition V.1, including, but not limited to, changes initiated by DEQ.
(9 VAC 5-80-110 E and 40 CFR 64.6(c))

e. The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the electrostatic precipitator controlling PM10 from the flake drying system, including the Wellons energy system. For the purposes of this permit, PM10 from the flake drying system is referred to as "PSEU C." The approved monitoring plan shall be the attached CAM Plan (Attachment C) or the most recent revision to that plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition V.7; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition V.8; or (3) otherwise approved by the DEQ conforming with Condition V.1, including, but not limited to, changes initiated by DEQ.
(9 VAC 5-80-110 E and 40 CFR 64.6(c))

f. See section V of this permit, for additional CAM requirements for PSEU A, PSEU B and PSEU C including their Quality Improvement Plan thresholds.
(9 VAC 5-80-110 E and 40 CFR 64)

3. **Recordkeeping for the Wellons/dryer system**

a. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:
   (1) The daily and yearly consumption by the Energy System of wood in units of tons, press vent cleanup wastes in units of tons, spray booth solids in units of tons, waste resin and wax in units of tons, oily water in units of gallons, paper products in units of tons, and hydraulic oil wastes in units of tons. Each yearly consumption rate shall be calculated monthly as the sum of each consecutive 12 month period.

(9 VAC 5-80-110, 40 CFR 60.49b and Condition 45a of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

(2) Records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the Energy System; any malfunction of the air pollution control equipment; and any periods during which a continuous monitoring system or monitoring device is inoperative.
(9 VAC 5-80-110, 40 CFR 60.7(b), and Condition 45e of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

(3) The permittee shall maintain records of the daily and yearly consumption by the Energy System's backup thermal oil heater of natural gas in units of cubic feet, and propane in units of gallons. Each yearly consumption rate shall be calculated monthly as the sum of each consecutive 12 month period.
(9 VAC 5-80-110, 40 CFR 60.49b, and Condition 45g of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

(4) The origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates, the equations used in these calculations, and the results of these calculations that demonstrate compliance with the limits specified in condition III.B.1.j.

(5) The records required by Condition III.B.2.a of this permit.
(9 VAC 5-80-110 E)

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-80-110, and Condition 45 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

b. See section IV of this permit for PCWP MACT recordkeeping requirements for the Wellons/dryer system.
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

4. **Testing for the Wellons/dryer system**

a. At a frequency not to exceed once every five years, the permittee shall conduct a stack test at stack 5600 to demonstrate compliance with the pound per million BTU emission limit for particulate matter contained in Condition III.B.1.j of this permit. The test shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30. The details of the tests shall be arranged with the South Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies

of the test results shall be submitted to the South Central Regional Office within 60 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-80-110 E)

b. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-80-110, 40 CFR 60.8(e), and Condition 15 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

c. See section IV of this permit for PCWP MACT testing requirements for the Wellons/dryer system.
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

5. **Reporting for the Wellons/dryer system**
See condition III.B.2.a for monitoring reporting, condition IX.E for general reporting, and section IV for PCWP MACT reporting requirements for the Wellons/dryer system.
(9 VAC 5-80-110)

C. Emission unit 3752, <u>thermal oil storage tank</u>

For the following listed applicable requirement types, there are no unit specific requirements for Emission Unit 3752: **Limitations, Monitoring, Testing**, **or Reporting**

1. **Recordkeeping for the thermal oil storage tank**
Except as specified in this permit, the thermal oil storage tank is to be operated in compliance with Federal emissions requirements under 40 CFR 60, Subpart Kb. These requirements include having readily accessible records showing the dimensions, and an analysis showing the capacity, of the thermal oil storage tank.
(9 VAC 5-80-110, 40 CFR 116b, and Condition 18 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

D. Emission unit 7000, <u>forming/pressing system</u>

The forming/pressing system includes, but is not limited to, (1) forming line, (1) press, and low pressure material handling systems 6900 (mat trim waste) and 6800 (former area and press pit wastes).

1. **Limitations for the forming/pressing system**
   a. <u>Press</u>
      (1) Emissions from the press shall be captured by a Permanent Total Enclosure, and particulate and VOC emissions from the press shall be controlled by a Regenerative Thermal Oxidizer with a Thermal Catalytic Oxidizer option. For the purposes of this permit, the term "RTO" refers to operation of the control device in the non-catalytic mode, the term "TCO" refers to operation of the same control

device in the catalytic mode, and the term "RTO/TCO" refers to the control device regardless of mode of operation. The RTO/TCO shall be provided with adequate access for inspection. The RTO/TCO shall be equipped with a device to continuously measure and record the temperature in the combustion chamber. The RTO/TCO shall be equipped with a device to continuously measure the differential pressure drop across the RTO/TCO. Each measurement and recording device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times. For the purposes of this condition, "continuously" shall mean that whenever the RTO/TCO is in operation, the monitoring system shall be monitoring except during periods of monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, and the monitoring system shall be capable of completing at least one cycle of operation (i.e., measuring and recording, or measuring only, as applicable) every 15 minutes.
(9 VAC 5-80-110, and Condition 6 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

(2) The minimum combustion chamber temperature for the RTO shall be maintained at 1500 ^{o}F when the press is in operation. The RTO minimum combustion chamber temperature shall be an hourly average, calculated on a 15 minute rolling basis.

The minimum combustion chamber temperature for the TCO shall be maintained at 900 ^{o}F when the press is in operation. The TCO minimum combustion chamber temperature shall be an hourly average, calculated on a 15 minute rolling basis.

The exhaust gas from the press shall have a minimum one (1) second retention time at or above the applicable minimum combustion chamber temperature for the RTO/TCO.

(9 VAC 5-80-110, and Condition 7 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

(3) Visible emissions from the press shall not exceed 10 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 5-80-110, and Condition 41 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.).

(4) Emissions from the operation of the press shall not exceed the limits specified below:

Particulate Matter	3.53 lbs/hr	15.0 tons/yr*

PM-10	3.53 lbs/hr	15.0 tons/yr*
Nitrogen Oxides (as NO_2)	4.53 lbs/hr	18.5 tons/yr*
Carbon Monoxide	7.19 lbs/hr	30.5 tons/yr*
Volatile Organic Compounds	2.09 lbs/hr	8.9 tons/yr*

* Tons/yr calculated monthly as the sum of each consecutive 12 month period.

(9 VAC 5-80-110, and Condition 36 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

b. Low pressure material handling systems 6800 and 6900

(1) Particulate emissions from the low pressure material handling systems 6800 and 6900 shall be controlled by fabric filters. The fabric filters shall be provided with adequate access for inspection. The fabric filter shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. Each device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times. For the purposes of this condition, "continuously" shall mean that whenever the low pressure material handling system 6800 or 6900 is in operation, the monitoring system shall be monitoring except during periods of monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, and the monitoring system shall be capable of completing at least one cycle of operation (i.e., measuring) every 15 minutes.
(9 VAC 5-80-110, and Condition 8 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

(2) Visible emissions from the low pressure material handling systems' fabric filters 6800 and 6900 shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 5-80-110, and Condition 42 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

(3) Emissions from the operation of the low pressure material handling systems shall not exceed the limits specified below:

System 6800

Particulate Matter	0.01 gr/dscf	10.7 tons/yr*
PM-10	0.01 gr/dscf	10.7 tons/yr*
System 6900		
Particulate Matter	0.01 gr/dscf	4.9 tons/yr*
PM-10	0.01 gr/dscf	4.9 tons/yr*

* Tons/yr calculated monthly as the sum of each consecutive 12 month period.

(9 VAC 5-80-110, and Condition 37 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

c. See section IV of this permit for PCWP MACT limitations for the Press. (9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

2. **Monitoring for the forming/pressing system**

a. Press

At least one time per calendar week an observation of the presence of visible emissions from the press shall be made. This observation shall be made on the RTO/TCO stack. For the purposes of this condition, the term "visible emissions" shall be read "visible emissions, excluding water vapor." The presence of visible emissions shall require the permittee to:

(1) take timely corrective action such that the press and its air pollution control system resumes operation with no visible emissions, or,

(2) conduct a visible emission evaluation (VEE) on the RTO/TCO stack in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the press are 10 percent opacity or less. If any of the observations exceed the opacity limitation of 10 percent, the observation period shall continue until a total of sixty (60) minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the press resumes operation within the 10 percent opacity limit.

(3) If visible emissions inspections conducted during twelve (12) consecutive weeks show no visible emissions for the RTO/TCO stack, the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack.

The permittee shall maintain a press observation log to demonstrate compliance. The logs shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action,

and the name of the observer. If the press has not been operated for any period during the week it shall be noted in the log book.
(9 VAC 5-80-110 E, 9 VAC 5-80-110 K)

b. Low pressure material handling systems 6800 and 6900
At least one time per calendar week an observation of the presence of visible emissions from the low pressure material handling systems 6800 and 6900 stacks shall be made. The presence of visible emissions shall require the permittee to:

(1) take timely corrective action such that the low pressure material handling system stack with visible emissions resumes operation with no visible emissions, or,

(2) conduct a visible emission evaluation (VEE) on the low pressure material handling system stack in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the low pressure material handling system stack are 5 percent opacity or less. If any of the observations exceed the opacity limitation of 5 percent, the observation period shall continue until a total of sixty (60) minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the low pressure material handling systems resume operation within the 5 percent opacity limit.

(3) If visible emissions inspections conducted during twelve (12) consecutive weeks show no visible emissions for a low pressure material handling system stack, the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack.

The permittee shall maintain a low pressure material handling systems 6800 and 6900 observation log for each stack to demonstrate compliance. The logs shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If neither of the low pressure material handling systems 6800 and 6900 has not been operated for any period during the week it shall be noted in the log book.
(9 VAC 5-80-110 E, 9 VAC 5-80-110 K)

c. See section IV of this permit for PCWP MACT monitoring requirements for the Press.
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

d. The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the RTO/TCO controlling VOC from the press. For the purposes of this permit, VOC from the press is referred to as "PSEU D." The approved monitoring plan shall be the attached CAM Plan (Attachment D) or the most recent revision to that plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition V.7; (2) revised pursuant to a Quality Improvement Plan in accordance with

40 CFR 64.8 and Condition V.8; or (3) otherwise approved by the DEQ conforming with Condition V.1, including, but not limited to, changes initiated by DEQ.
(9 VAC 5-80-110 E and 40 CFR 64.6(c))

e. See section V of this permit, for additional CAM requirements for PSEU D including the Quality Improvement Plan threshold.
(9 VAC 5-80-110 E and 40 CFR 64)

3. **Recordkeeping for the forming/pressing system**

a. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

(1) records of the output of the RTO/TCO combustion chamber temperature measuring device,

(2) the observation logs required by Condition III.D.2 of this permit, and

(3) the origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates, the equations used in these calculations, and the results of these calculations that demonstrate compliance with the limits specified in condition III.D.1.a(4) and III.D.1.b(3).

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110, and Conditions 45f of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

b. See section IV of this permit for PCWP MACT Recordkeeping requirements for the Press.
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

4. **Testing for the forming/pressing system**

a. Periodic activity tests shall be conducted on the TCO catalyst to determine the on-going activity level in terms of percent destruction of VOC. The periodic activity test requirement shall remain in effect so long as the oxidizer is operated as a catalytic unit. Unless otherwise approved in writing by the DEQ, the interval for these periodic activity tests shall not exceed 12 months of TCO operation, calculated from the month following the most recent valid periodic activity test. Two (2) copies of the test results shall be submitted to the South Central Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit. (9 VAC 5-80-110, and Condition 24 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

b. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-80-110, and Condition 15 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

c. See section IV of this permit for PCWP MACT testing requirements for the Press. (9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

5. **Reporting for the forming/pressing system**

a. The permittee shall furnish written notification to the South Central Regional Office of the actual date of any change in RTO/TCO operating mode (that is, from RTO to TCO or from TCO to RTO) within fifteen (15) days after such date.
(9 VAC 5-80-110, and Condition 44k of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

b. The reporting requirements of Condition IX.E of this permit apply.

c. See section IV of this permit for PCWP MACT reporting requirements for the Press. (9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

E. Emission unit 8000, <u>trim system</u>

The trim system includes, but is not limited to, the low pressure material handling system 8900 (trim waste)

1. **Limitations for the trim system**

a. Particulate emissions from the low pressure material handling system 8900 shall be controlled by a fabric filter. The fabric filter shall be provided with adequate access for inspection. The fabric filter shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times. For the purposes of this condition, "continuously" shall

mean that whenever the low pressure material handling system 8900 is in operation, the monitoring system shall be monitoring except during periods of monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, and the monitoring system shall be capable of completing at least one cycle of operation (i.e., measuring) every 15 minutes.
(9 VAC 5-80-110, Condition 8 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

b. Visible emissions from the low pressure material handling system's fabric filters 8900 shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 5-80-110, and Condition 42 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

c. Emissions from the operation of the to the low pressure material handling system 8900 shall not exceed the limits specified below:

Particulate Matter	0.01 gr/dscf	8.2 tons/yr*
PM-10	0.01 gr/dscf	8.2 tons/yr*

* Tons/yr calculated monthly as the sum of each consecutive 12 month period.

(9 VAC 5-80-110, and Condition 37 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

2. Monitoring for the trim system
At least one time per calendar week an observation of the presence of visible emissions from the low pressure material handling system 8900 stack shall be made. The presence of visible emissions shall require the permittee to:

a. take timely corrective action such that the low pressure material handling system 8900 resumes operation with no visible emissions, or,

b. conduct a visible emission evaluation (VEE) on the low pressure material handling system 8900 stack in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the low pressure material handling system 8900 are 5 percent opacity or less. If any of the observations exceed the opacity limitation of 5 percent, the observation period shall continue until a total of sixty (60) minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the low pressure material handling system 8900 resumes operation within the 5 percent opacity limit.

c. If visible emissions inspections conducted during twelve (12) consecutive weeks show no visible emissions for the low pressure material handling system 8900 stack, the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack.

The permittee shall maintain a low pressure material handling system 8900 stack observation log to demonstrate compliance. The logs shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the low pressure material handling system 8900 has not been operated for any period during the week it shall be noted in the log book.
(9 VAC 5-80-110 E, 9 VAC 5-80-110 K)

3. **Recordkeeping for the trim system**
The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

a. the origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates, the equations used in these calculations, and the results of these calculations that demonstrate compliance with the limits specified in condition III.E.1.c, and

b. the observation log required by Condition III.E.2 of this permit.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-80-110)

4. **Testing for the trim system**
The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-80-110, and Condition 15 of the NSR permit issued September 17, 1997, as

amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

5. **Reporting for the trim system**
   The reporting requirements of Condition IX.E of this permit apply for Emission Unit 8000, trim system.

F. Emission unit 9000, finishing system

The finishing system includes, but is not limited to, (1) tongue & groove machine, (1) sander, low pressure material handling system 9500 (sander dust collection), high pressure material handling system 9600 (sander dust transportation), and a spray booth.

1. **Limitations for the finishing system**

a. Material handling systems 9500 and 9600

(1) Particulate emissions from the low pressure material handling system 9500 shall be controlled by a fabric filter. The fabric filter shall be provided with adequate access for inspection. The fabric filter shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times. For the purposes of this condition, "continuously" shall mean that whenever the low pressure material handling system 9500 is in operation, the monitoring system shall be monitoring except during periods of monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, and the monitoring system shall be capable of completing at least one cycle of operation (i.e., measuring) every 15 minutes. (9 VAC 5-80-110, and Condition 8 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

(2) (A) Particulate emissions from the high pressure material handling system 9600 shall be controlled by a cyclone with a minimum design efficiency of 99.9 percent. The cyclone shall be provided with adequate access for inspection.

(B) An annual internal inspection shall be conducted on the cyclone by the permittee to insure structural integrity.

(9 VAC 5-80-110, and Condition 9 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

(3) Visible emissions from the number 9500 low pressure material handling system's fabric filter, and from the number 9600 high pressure material handling system's cyclone shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 5-80-110, and Condition 42 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

(4) Emissions from the operation of the material handling systems 9500 and 9600 shall not exceed the limits specified below:

System 9500

Particulate Matter	0.01 gr/dscf	8.6 tons/yr*
PM-10	0.01 gr/dscf	8.6 tons/yr*

System 9600

Particulate Matter	0.01 gr/dscf	1.3 tons/yr*
PM-10	0.01 gr/dscf	1.3 tons/yr*

* Tons/yr calculated monthly as the sum of each consecutive 12 month period.

(9 VAC 5-80-110, and Conditions 37, and 38 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

b. Spray booth

(1) Particulate emissions from the spray booth shall be controlled by a water curtain, filter collectors, or DEQ approved equivalent. The control device shall be provided with adequate access for inspection.
(9 VAC 5-80-110, and Condition 10 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

(2) Emissions from the operation of the spray booth shall not exceed the limits specified below:

Particulate Matter	0.2 lb/hr	0.9 tons/yr*
PM-10	0.2 lb/hr	0.9 tons/yr*

* Tons/yr calculated monthly as the sum of each consecutive 12 month period.

(9 VAC 5-80-110, Condition 39 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

(3) See section IV of this permit for PCWP MACT limitations for the spray booth. (9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

2. **Monitoring for the finishing system**

a. At least one time per calendar week an observation of the presence of visible emissions from the material handling system 9600 stack shall be made. The presence of visible emissions shall require the permittee to:

(1) take timely corrective action such that the material handling system stack with visible emissions resumes operation with no visible emissions, or,

(2) conduct a visible emission evaluation (VEE) on the material handling system stack with visible emissions in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the material handling system stack are 5 percent opacity or less. If any of the observations exceed the opacity limitation of 5 percent, the observation period shall continue until a total of sixty (60) minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the material handling systems resume operation within the 5 percent opacity limit.

(3) If visible emissions inspections conducted during twelve (12) consecutive weeks show no visible emissions for a particular stack, the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack.

The permittee shall maintain a material handling system 9600 observation log to demonstrate compliance. The logs shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the material handling system 9600 has not been operated for any period during the week it shall be noted in the log book. (9 VAC 5-80-110 E, 9 VAC 5-80-110 K)

b. At least one time per calendar week an observation of the presence of visible emissions from the spray booth stacks shall be made. The presence of visible emissions shall require the permittee to:

(1) take timely corrective action such that the spray booth resumes operation with no visible emissions, or,

(2) conduct a visible emission evaluation (VEE) on the spray booth stack with visible emissions in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the material handling system stack are 5 percent opacity or less. If any of the observations exceed the opacity limitation of 5 percent, the observation period shall continue until a total of sixty (60) minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the material handling systems resume operation within the 5 percent opacity limit.

(3) If visible emissions inspections conducted during twelve (12) consecutive weeks show no visible emissions for a particular stack, the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack.

The permittee shall maintain a spray booth observation log for each stack to demonstrate compliance. The log shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the spray booth has not been operated for any period during the week it shall be noted in the log book.
(9 VAC 5-80-110 E, 9 VAC 5-80-110 K)

c. See section IV of this permit for PCWP MACT monitoring requirements for the spray booth.
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

d. The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the fabric filter controlling PM10 from the sander (material handling system 9500). For the purposes of this permit, PM10 from the sander is referred to as "PSEU E." The approved monitoring plan shall be the attached CAM Plan (Attachment E) or the most recent revision to that plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition V.7; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition V.8; or (3) otherwise approved by the DEQ conforming with Condition V.1, including, but not limited to, changes initiated by DEQ.
(9 VAC 5-80-110 E and 40 CFR 64.6(c))

e. See section V of this permit, for additional CAM requirements for PSEU E including the Quality Improvement Plan threshold.
(9 VAC 5-80-110 E and 40 CFR 64)

3. **Recordkeeping for the finishing system**

a. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

(1) the origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates, the equations used in these calculations, and the results of these calculations that demonstrate compliance with the limits specified in condition III.F.1.a(4) and III.F.1.b(2), and

(2) the observation logs by Condition III.F.2 of this permit.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-80-110)

b. See section IV of this permit for PCWP MACT recordkeeping requirements for the spray booth.
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

4. **Testing for the finishing system**
   a. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
   (9 VAC 5-80-110, and Condition 15 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

   b. See section IV of this permit for PCWP MACT testing requirements for the spray booth.
   (9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

5. **Reporting for the finishing system**
   a. The reporting requirements of Condition IX.E of this permit apply for Emission Unit 9000, finishing system.

   b. See section IV of this permit for PCWP MACT reporting requirements for the spray booth.
   (9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

G. Emission unit 9900, <u>general plant</u>

The general plant includes, but is not limited to, material handling system 8950 (dry fuel cyclone), the facility roads, and open storage of wood materials.

1. **Limitations for the general plant**
   a. Particulate emissions from the high pressure material handling system 8950 shall be controlled by a cyclone with a minimum design efficiency of 99.9 percent. The cyclone shall be provided with adequate access for inspection. An annual internal inspection shall be conducted on the cyclone by the permittee to insure structural integrity.
   (9 VAC 5-80-110, and Condition 9 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

   b. Reasonable precautions to prevent particulate matter from becoming airborne as a result of vehicular traffic shall be taken.
   (9 VAC 5-80-110, and Condition 11 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

   c. Fugitive particulate emissions from open storage of wood materials shall be controlled by wet suppression when control is necessary to insure compliance with condition III.G.1.e.
   (9 VAC 5-80-110, and Condition 12 of the NSR permit issued September 17, 1997, as

amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

d. The annual throughput of powdered resin shall not exceed 11,459 tons per year, calculated monthly as the sum of each consecutive 12 month period.
(9 VAC 5-80-110, and Condition 20 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

e. Visible emissions from fugitive emission points shall not exceed ten percent (10%) opacity.
(9 VAC 5-80-110, and Condition 43 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

f. The annual production of finished Oriented Strandboard shall not exceed 424.4×10^6 square feet per year, calculated monthly as the sum of each consecutive 12 month period. The square footage is based on a panel thickness of 3/8 inches.
(9 VAC 5-80-110, and Condition 21 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

g. Visible emissions from the number 8950 high pressure material handling system's cyclone shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 5-80-110, and Condition 42 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

h. Emissions from the operation of the material handling system 8950 process shall not exceed the limits specified below:

Particulate Matter	0.01 gr/dscf	1.8 tons/yr*
PM-10	0.01 gr/dscf	1.8 tons/yr*

* Tons/yr calculated monthly as the sum of each consecutive 12 month period.

(9 VAC 5-80-110, and Condition 38 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

2. **Monitoring for the general plant**

a. At least one time per calendar week an observation of the presence of visible emissions from the material handling system 8950 stack shall be made. The presence of visible emissions shall require the permittee to:

(1) take timely corrective action such that the material handling system stack resumes operation with no visible emissions, or,

(2) conduct a visible emission evaluation (VEE) on the material handling system stack in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the material handling system stack are 5 percent opacity or less. If any of the observations exceed the opacity limitation of 5 percent, the observation period shall continue until a total of sixty (60) minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the material handling system resumes operation within the 5 percent opacity limit.

(3) If visible emissions inspections conducted during twelve (12) consecutive weeks show no visible emissions for the material handling system 8950 stack, the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack.

The permittee shall maintain a material handling system 8950 observation log to demonstrate compliance. The logs shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the material handling system 8950 has not been operated for any period during the week it shall be noted in the log book. (9 VAC 5-80-110 E, 9 VAC 5-80-110 K)

3. **Recordkeeping for the general plant**

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

a. the origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates, the equations used in these calculations, and the results of these calculations that demonstrate compliance with the limits specified in condition III.G.1.h.

b. the yearly production of finished Oriented Strandboard, in units of square feet per year, calculated monthly as the sum of each consecutive 12 month period. The square footage shall be based on a panel thickness of 3/8 inches,
(Condition 45d of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

c. the yearly throughput of powdered resin, in units of tons per year, calculated monthly as the sum of each consecutive 12 month period, and
(Condition 45c of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

d. the observation log required by Condition III.G.2 of this permit

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-80-110, 9 VAC 5-50-50)

4. **Testing for the general plant**
The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-80-110, and Condition 15 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

5. **Reporting for the general plant**
The reporting requirements of Condition IX.E of this permit apply for Emission Unit 9900, general plant.

IV. Plywood and Composite Wood Products (PCWP) MACT Requirements

A. PCWP MACT- General

This section of this permit is for the implementation of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Plywood and Composite Wood Products (PCWP), 40 CFR 63 Subpart DDDD, referred to as the PCWP MACT. Except where this permit is more restrictive, the permittee shall comply with the requirements of 40 CFR 63 Subpart DDDD.

1. Table 10 of 40 CFR 63 Subpart DDDD shows which parts of the General Provisions in 40 CFR 63.1 through 63.13 apply to the permittee.
(9 VAC 5-80-110 and 40 CFR 63.2290)

2. Terms used in section IV of this permit are defined in the Clean Air Act (CAA), in 40 CFR 63.2, the General Provisions, and in 40 CFR 63.2292.

(9 VAC 5-80-110 and 40 CFR 63.2292)

3. The permittee must comply with the compliance options, operating requirements, and work practice requirements no later October 1, 2007.
(9 VAC 5-80-110 and 40 CFR 63.2233(b))

B. PCWP MACT Limitations

1. The permittee must use an emission control system and demonstrate that the resulting emissions meet the compliance options and operating requirements of Tables 1B and 2 of 40 CFR 63 Subpart DDDD.

   a. For the Energy System and Dryers the requirements of Table 1B are as follows:

      (1) reduce emissions of total HAP, measured as THC (as carbon, from which methane may be subtracted), by 90 percent; or
      (2) limit emissions of total HAP, measured as THC (as carbon, from which methane may be subtracted), to 20 ppmvd; or
      (3) reduce methanol emissions by 90 percent; or
      (4) limit methanol emissions to less than or equal to 1 ppmvd if uncontrolled methanol emissions entering the control device are greater than or equal to 10 ppmvd; or
      (5) reduce formaldehyde emissions by 90 percent; or
      (6) limit formaldehyde emissions to less than or equal to 1 ppmvd if uncontrolled formaldehyde emissions entering the control device are greater than or equal to 10 ppmvd.

   b. For the Energy System and Dryers the requirements of Table 2 are as follows:

      The permittee must either maintain the 3-hour block average firebox temperature of the Wellons energy system above the minimum temperature established during the performance test or maintain the 3-hour block average THC concentration (from which methane may be subtracted) in the Wellons energy system exhaust below the maximum concentration established during the performance test.

   c. For the Press the requirements of Table 1B are as follows:

      (1) reduce emissions of total HAP, measured as THC (as carbon, from which methane may be subtracted), by 90 percent; or
      (2) limit emissions of total HAP, measured as THC (as carbon, from which methane may be subtracted), to 20 ppmvd; or
      (3) reduce methanol emissions by 90 percent; or
      (4) limit methanol emissions to less than or equal to 1 ppmvd if uncontrolled methanol emissions entering the control device are greater than or equal to 10 ppmvd; or
      (5) reduce formaldehyde emissions by 90 percent; or
      (6) limit formaldehyde emissions to less than or equal to 1 ppmvd if uncontrolled formaldehyde emissions entering the control device are greater than or equal to 10 ppmvd.

   d. For the Press the requirements of Table 2 are as follows:

      When the RTO/TCO is operating in the RTO mode, the permittee must either maintain the 3-hour block average firebox temperature of the RTO above the minimum temperature established during the performance test or maintain the 3-hour block

average THC concentration (from which methane may be subtracted) in the thermal oxidizer exhaust below the maximum concentration established during the performance test.

When the RTO/TCO is operating in the TCO mode, the permittee must either maintain the 3-hour block average TCO temperature above the minimum temperature established during the performance test; AND check the activity level of a representative sample of the catalyst at least every 12 months, or maintain the 3-hour block average THC concentration (from which methane may be subtracted) in the TCO below the maximum concentration established during the performance test.

Furthermore, if the permittee chooses to comply with one of the concentration-based compliance options for the control system outlet (presented as option numbers 2, 4, or 6 in condition IV.B.1.c) the permittee must have a capture device that either meets the definition of wood products enclosure in 40 CFR 63.2292 or achieves a capture efficiency of greater than or equal to 95 percent.

(9 VAC 5-80-110 and 40 CFR 63.2240(b))

2. The permittee must meet the work practice requirement in Table 3 of 40 CFR 63 Subpart DDDD. For the group 1 miscellaneous coating operations, Table 3 requires that the permittee must use non-HAP coatings as defined in 40 CFR 63.2292.
(9 VAC 5-80-110 and 40 CFR 63.2241)

3. The permittee must be in compliance with the compliance options, operating requirements, and the work practice requirements in 40 CFR 63 Subpart DDDD at all times, except during periods of process unit or control device startup, shutdown, and malfunction; and prior to process unit initial startup; and during the routine control device maintenance exemption specified in 40 CFR 63. 2251. The compliance options, operating requirements, and work practice requirements do not apply during times when the process unit(s) subject to the compliance options, operating requirements, and work practice requirements are not operating, or during scheduled periods of startup, and shutdown periods, and during malfunctions. Startup and shutdown periods must not exceed the minimum amount of time necessary for these events.

   The permittee must always operate and maintain the affected source, including air pollution control and monitoring equipment, according to the provisions of 40 CFR 63.6(e)(1)(i).

   The permittee must develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions of 40 CFR 63.6(e)(3).

   (9 VAC 5-80-110 and 40 CFR 63.2250)

4. The permittee must demonstrate initial compliance with each compliance option, operating requirement, and work practice requirement that applies to the permitted facility according

to Tables 5 and 6 of 40 CFR 63 Subpart DDDD and according to 40 CFR 63.2260 through 40 CFR 63.2269.
(9 VAC 5-80-110 and 40 CFR 63.2260(b))

5. The permittee must conduct initial compliance demonstrations that do not require performance tests upon initial startup or no later than 30 calendar days after the compliance date that is specified for the permitted facility in condition IV.A.3, whichever is later.
(9 VAC 5-80-110 and 40 CFR 63.2261(b))

6. The permittee must demonstrate continuous compliance with the compliance options, operating requirements, and work practice requirements in 40 CFR 63.2240 and 63.2241 that apply to the permitted facility according to the methods specified in Tables 7 and 8 of 40 CFR 63 Subpart DDDD.
(9 VAC 5-80-110 and 40 CFR 63.2271(a))

C. PCWP MACT Monitoring

1. The permittee must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to paragraphs (a)(1) through (3) of 40 CFR 63.2269.
(9 VAC 5-80-110 and 40 CFR 63.2269(a))

2. For each temperature monitoring device, the permittee must meet the requirements in condition IV.C.1, and paragraphs (b)(1) through (6) of 40 CFR 63.2269.
(9 VAC 5-80-110 and 40 CFR 63.2269(b))

3. The permittee must monitor and collect data according to 40 CFR 63.2270.
(9 VAC 5-80-110 and 40 CFR 63.2270)

D. PCWP MACT Testing

1. To demonstrate initial compliance with the compliance options and operating requirements, the permittee must conduct performance tests and establish each site-specific operating requirement in Table 2 of 40 CFR 63 Subpart DDDD according to the requirements in 40 CFR 63.2262 and Table 4 of 40 CFR 63 Subpart DDDD.
(9 VAC 5-80-110 and 40 CFR 63.2260(a))

2. The permittee must conduct performance tests upon initial startup or no later than 180 calendar days after the compliance date that is specified for the permitted facility in condition IV.A.3 and according to 40 CFR 63.7(a)(2), whichever is later.
(9 VAC 5-80-110 and 40 CFR 63.2261(a))

3. The permittee must conduct each performance test according to the requirements in 40 CFR 63.7(e)(1), the requirements in paragraph (b) through (o) of 40 CFR 63.2262, and according to the methods specified in Table 4 of 40 CFR 63 Subpart DDDD.
(9 VAC 5-80-110 and 40 CFR 63.2262)

E. PCWP MACT Recordkeeping

1. The permittee must keep records the following records:

   a. A copy of each notification and report that the permittee submitted to comply with 40 CFR 63 Subpart DDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv).

   b. The records in 40 CFR 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

   c. Records of performance test and performance evaluations as required in 40 CFR 63.10(b)(2)(viii).

   (9 VAC 5-80-110 and 40 CFR 63.2282)

2. The permittee's records must be in a form suitable and readily available for expeditious review as specified in 40 CFR 63.10(b)(1).

   As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

   The permittee must keep records on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to 40 CFR 63.10(b)(1). The permittee can keep the records offsite for the remaining 3 years.

   (9 VAC 5-80-110 and 40 CFR 63.2283)

F. PCWP MACT Reporting

1. The permittee must report each instance in which the permitted facility did not meet each compliance option, operating requirement, and work practice requirement in Table 8 of 40 CFR 63 Subpart DDDD that applies to the permitted facility. These instances are deviations from the work practice requirements in 40 CFR 63 Subpart DDDD. These deviations must be reported according to the requirements in condition IX.E.3. (9 VAC 5-80-110 and 40 CFR 63.2271(b))

2. <u>NOTIFICATIONS</u>

   a. The permittee must submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) by the dates specified.

   b. If the permittee is required to conduct a performance test, the permittee must submit a written notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as specified in 40 CFR 63.7(b)(1).

   c. If the permittee is required to conduct a performance test, design evaluation, or other initial compliance demonstration as specified in Tables 4, 5, and 6 of 40 CFR 63

Subpart DDDD, the permittee must submit a Notification of Compliance Status as specified in 40 CFR 63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 5 or 6 of 40 CFR 63 Subpart DDDD that does not include a performance test, the permittee must submit the Notification of Compliance Status before the close of business on the 30th calendar day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in Tables 5 and 6 of 40 CFR 63 Subpart DDDD that includes a performance test conducted according to the requirements in Table 4 of 40 CFR 63 Subpart DDDD, the permittee must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to 40 CFR 63.10(d)(2).

d. The permittee must notify the Administrator within 30 days before you take any of the actions specified in paragraphs (g)(1) through (3) of 40 CFR 63.2280.

(9 VAC 5-80-110 and 40 CFR 63.2280)

3. REPORTS

a. The permittee must submit each report in Table 9 of 40 CFR 63 Subpart DDDD that applies to the permitted facility.

b. Unless the Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report by the date in Table 9 of 40 CFR 63 Subpart DDDD and as specified in paragraphs (b)(1) through (5) of 40 CFR 63.2281.

c. The compliance report must contain the information in paragraphs (c)(1) through (8) of 40 CFR 63.2281.

d. For each deviation from a compliance option or operating requirement and for each deviation from the work practice requirements in Table 8 of 40 CFR 63 Subpart DDDD that occurs at an affected source where the permittee is not using a Continuous Monitoring System (CMS) to comply with the compliance options, operating requirements, or work practice requirements in this subpart, the compliance report must contain the information in paragraphs (c)(1) through (6) of 40 CFR 63.2281 and in paragraphs (d)(1) and (2) of 40 CFR 63.2281. This includes periods of startup, shutdown, and malfunction and routine control device maintenance.

e. For each deviation from a compliance option or operating requirement occurring at an affected source where the permittee is using a CMS to comply with the compliance options and operating requirements in this subpart, the permittee must include the information in paragraphs (c)(1) through (6) and paragraphs (e)(1) through (11) of 40

CFR 63.2281. This includes periods of startup, shutdown, and malfunction and routine control device maintenance.

f. Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 must report all deviations as defined in 40 CFR 63 Subpart DDDD in the semiannual monitoring report required by condition IX.E.3. If an affected source submits a compliance report pursuant to Table 9 of 40 CFR 63 Subpart DDDD along with, or as part of, the semiannual monitoring report required by condition IX.E.3, and the compliance report includes all required information concerning deviations from any compliance option, operating requirement, or work practice requirement in this subpart, submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report.

(9 VAC 5-80-110 and 40 CFR 63.2281)

V. General CAM Provisions

1. Each monitoring approach shall be designed and implemented in compliance with 40 CFR 64.3(b) or (d). If a monitoring approach uses a monitoring device, the device shall be operated according to manufacturer's specifications, unless other methods are approved, and in compliance with 40 CFR 64.3(b) or (d). The approved CAM Plan shall include, at a minimum, the following information:

   a. **Indicator**;
   b. **Measurement Approach**;
   c. **Indicator Range <u>or</u> Condition(s) for Range Development**; and
   d. The following **performance criteria**:
      i. **Data Representativeness**;
      ii. **Verification of Operational Status**;
      iii. **QA/QC Practices and Criteria**;
      iv. **Monitoring Frequency;**
      v. **Data Collection Procedures;** and
      vi. **Averaging Period**

   Changes to a CAM Plan pertaining to the information in this condition require prior approval by the DEQ and may require public participation according to the requirements of 9 VAC 5-80-230.
   (9 VAC 5-80-110 E and 40 CFR 64.6(c))

2. The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR 64.7 through 40 CFR 64.9.
   (9 VAC 5-80-110 E and 40 CFR 64.6(c))

3. If a monitoring approach uses a monitoring device, at all times, the permittee shall maintain the monitoring equipment, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
   (9 VAC 5-80-110 E and 40 CFR 64.7(b))

4. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the PSEU is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of compliance assurance monitoring, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by inadequate maintenance or improper operation are not malfunctions.
(9 VAC 5-80-110 E and 40 CFR 64.7(c))

5. Upon detecting an excursion or exceedance, the permittee shall restore operation of the PSEU (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup and shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator, designated condition, or below the applicable emission limitation or standard, as applicable.
(9 VAC 5-80-110 E and 40 CFR 64.7(d)(1))

6. Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
(9 VAC 5-80-110 E and 40 CFR 64.7(d)(2))

7. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly (in accordance with Condition IX.G) notify the South Central Regional Office and submit a revised CAM Plan for approval to the South Central Regional Office to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

(9 VAC 5-80-110 E, 40 CFR 64.7(e), and 40 CFR 64.6(c))

8. For each PSEU, the Quality Improvement Plan (QIP) threshold shall be as shown in the following table:

PSEU			QIP Triggering Threshold
ID	Condition No.	Pollutant	
PSEU A	III.B.2.c	VOC & CO	5% for the operating time for flake drying system
PSEU B	III.B.2.d	NOx	5% for the operating time for Wellons Energy System
PSEU C	III.B.2.e	PM10	5% for the operating time for flake drying system, including the Wellons Energy System
PSEU D	III.D.2.d	VOC	5% for the operating time for press
PSEU E	III.F.2.d	PM10	2 excursions in a 2 week period

For any PSEU, if the number of exceedances or excursions exceeds its threshold in the above table, or as otherwise required by the DEQ in accordance with review conducted under 40 CFR 64.7(d)(2), the permittee shall develop, implement and maintain a QIP in accordance with 40 CFR 64.8. If a QIP is required, the permittee shall have it available for inspection at the permitted facility. In the event that changes are made to a CAM Plan as a result of a QIP, the permittee shall record the revision date on Page 1 of the CAM Plan and monitor in accordance with the most recent CAM Plan. The permittee shall submit a copy of the most recent CAM Plan to the South Central Region within 30 days of the revision date. For the purposes of this condition, the most recent version of a CAM Plan shall be based on the date as shown on page 1 of the CAM Plan.
(9 VAC 5-80-110 E and 40 CFR 64.8(a) and (b))

9. Monitoring imposed under 40 CFR Part 64 shall not excuse the permittee from complying with any existing requirements under federal, state, or local law, or any other applicable requirement under the Act, as described in 40 CFR 64.10.
(9 VAC 5-80-110 and 40 CFR 64.10)

10. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written QIP required pursuant to 40 CFR 64.8 and any activities undertaken to implement a QIP, and other supporting information required to be maintained under 40 CFR Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
(9 VAC 5-80-110 F and 40 CFR 64.9(b))

11. The permittee shall submit CAM reports for each PSEU as part of the Title V semi-annual monitoring reports required by General Condition IX.E.3 of this permit to the South Central Regional Office. Each report shall include at a minimum:

    a. Identification of the PSEU for which the report is made;

b. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

c. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

d. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

(9 VAC 5-80-110 F and 40 CFR 64.9(a))

VI. Facility Wide Conditions

Limitations
Unless otherwise specified in this permit, for a new emission unit at the facility, visible emissions shall not exceed 20 percent opacity, except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-50-80 and 9VAC 5-80-110)

VII. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation 9 VAC	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
1100	(2) log cut-up saws	5-80-720 B.1	PM/PM10	---
1300	green chip loadout bin	5-80-720 B.1	PM/PM10	---
1400	fuel hog	5-80-720 B.1	PM/PM10	---
2000	(2) flakers	5-80-720 B.1	PM/PM10	---
3600	screen fines loadout bin	5-80-720 B.1	PM/PM10	---
3700	hog fuel silo	5-80-720 B.1	PM/PM10	---

3800	dry fuel silo	5-80-720 B.1	PM/PM10	---
3900	Sanderdust silo	5-80-720 B.1	PM/PM10	---
6000	Dry flake storage & blending system	5-80-720 B.1	PM/PM10	---
0810	1000 gal hydraulic oil storage tank	5-80-720 B.2	VOC	---
0815	6000 gal hydraulic oil storage tank	5-80-720 B.2	VOC	---
0820	2000 gal diesel fuel storage tank	5-80-720 B.2	VOC	---
0825	500 gal gasoline storage tank	5-80-720 B.2	VOC	---
0993	250 gal kerosene storage tank	5-80-720 B.2	VOC	---
3250	6000 gal urea storage tank	5-80-720 B.2	VOC	---
5086	500 gal used oil storage tank	5-80-720 C.3	VOC	500
6610	10,000 gal wax storage tank	5-80-720 B.2	VOC	---
6615	10,000 gal wax storage tank	5-80-720 B.2	VOC	---

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

VIII. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
40 CFR 60 Subpart Ea	Standards of Performance for Municipal Waste Combustors for which construction is commenced	This facility does not have a capacity greater than the 250 tons of municipal solid waste/day

	after 12/20/89 and before 9/20/94	applicability threshold
40 CFR 61 Subpart V	National Emission Standard for Equipment Leaks (Fugitive Emission Sources)	Per the definitions in the subpart, this subpart applies to only sources in operations benzene and vinyl chloride service.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-140)

IX. General Conditions

A. Maintenance Schedule

In order to minimize the duration and frequency of excess emissions due to malfunctions of process equipment or air pollution control equipment, the permittee shall:

1. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance. These records shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request.

2. Maintain an inventory of spare parts that are needed to minimize durations of air pollution control equipment breakdowns.

(9 VAC 5-80-110, and Condition 49 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

B. Operating Procedures

The permittee shall have available written operating procedures for the air pollution control and monitoring equipment. Operators shall be trained in the proper operation of all such equipment and shall be familiar with the written operating procedures. These procedures shall be based on the manufacturer's recommendations, at a minimum. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at a minimum. The permittee shall maintain records of training provided including names of trainees, date of training and nature of training. All records required by this condition shall be kept on site and made available for inspection by the DEQ.
(9 VAC 5-80-110, and Condition 50 of the NSR permit issued September 17, 1997, as amended April 10, 1998, December 3, 1999, August 28, and December 3, 2002, June 30, 2003, and January 22, 2007.)

C. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable. (9 VAC 5-80-110 N)

D. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless a timely and complete renewal application consistent, with 9 VAC 5-80-80, has been submitted, to the Department, by the owner, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.

2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.

3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.

4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C, and F; 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

E. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

   a. The date, place as defined in the permit, and time of sampling or measurements.

   b. The date(s) analyses were performed.

c. The company or entity that performed the analyses.

d. The analytical techniques or methods used.

e. The results of such analyses.

f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)

2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
(9 VAC 5-80-110 F and 40 CFR 60.7(f))

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.

b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:

(1) Exceedance of emissions limitations or operational restrictions;

(2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,

(3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9 VAC 5-80-110 F)

F. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to DEQ and EPA no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. . The time period to be addressed is January 1 to December 31.

2. The identification of each term or condition of the permit that is the basis of the certification.

3. The compliance status.

4. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.

5. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

6. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00)
U. S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029.

(9 VAC 5-80-110 K.5)

G. Permit Deviation Reporting

The permittee shall notify the South Central Regional Office within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition IX.E.3 of this permit.

(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

H. Failure/Malfunction Reporting

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the South Central Regional Office by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the South Central Regional Office.

1. The emission units that have continuous monitors subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not subject to the two week written notification.

2. The emission units subject to the reporting and the procedure requirements of 9 VAC 5-40-50 C and the procedures of 9 VAC 5-50-50 C are listed below:

   - Wellons/dryer system continuous opacity monitor

3. Each owner required to install a continuous monitoring system (CMS) or monitoring device subject to 9 VAC 5-40-41 or 9 VAC 5-50-410 shall submit a written report of excess emissions (as defined in the applicable subpart in 9 VAC 5-50-410) and either a monitoring systems performance report or a summary report form, or both, to the board for every calendar semiannual period. All semiannual reports shall be postmarked by the 30th day following the end of each calendar semiannual period (June 30th and January 30th). All reports shall include the following information:

   a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9 VAC 5-40-41 B 6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;

   b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;

   c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.

All emission units not subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C require written reports within 14 days of the discovery of the malfunction.

(9 VAC 5-20-180 C, 9 VAC 5-50-50, and 40 CFR 60.7)

I. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)

J. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)

K. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

L. Permit Modification

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9 VAC 5-80-190, and 9 VAC 5-80-260)

M. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-110 G.5)

N. Duty to Submit Information

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9 VAC 5-80-110 G.6)

2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110 K.1)

O. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

P. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

2. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;

4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-50-90)

Q. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9 VAC 5-50-20 E)

R. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.
(9 VAC 5-80-110 J)

S. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

T. Reopening For Cause

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

U. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-150 E)

V. Transfer of Permits

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)

2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

W. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.

2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:

   a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.

   b. The permitted facility was at the time being properly operated.

   c. During the period of malfunction, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit.

   d. The permittee notified the board of the malfunction within two working days following the time when the emissions limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate

emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F.2.b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirements under 9 VAC 5-20-180 C.

3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.

4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.
(9 VAC 5-80-250)

X. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-190 C and 9 VAC 5-80-260)

Y. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)

Z. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(40 CFR Part 82, Subparts A-F)

AA. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

BB. Changes to Permits for Emissions Trading

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

(9 VAC 5-80-110 I)

CC. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.

2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

ATTACHMENT A

COMPLIANCE ASSURANCE MONITORING PLAN FOR THE WELLONS ENERGY SYSTEM USED TO CONTROL CO AND VOC EMISSIONS FROM THE OXB ROTARY DRYERS AT THE BROOKNEAL, VA OSB PLANT TITLE V PERMIT NO. VA-30903

Compliance Assurance Monitoring (CAM) Rule

The CAM rule is essentially a companion rule to Title V, requiring that control device operating parameters be monitored in order to demonstrate compliance with a specified emission limitation or standard. At 40 CFR 64.2(a), the CAM rule states the following:

> *"...the requirements of this part shall apply to a pollutant-specific emissions unit at a major source that is required to obtain a part 70 or 71 permit if the unit satisfies all of the following criteria:*
>
> *(1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant (or surrogate thereof), other than an emission limitation or standard that is exempt under paragraph (b)(1) of this section;*
>
> *(2) The unit uses a control device to achieve compliance with any such emission limitation or standard; and*
>
> *(3) The unit has the potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source…"*

The CAM Rule defines two classes of emission units. These are "large pollutant-specific emissions units" and "other pollutant-specific emissions units". The "large" units are those, "...with the potential to emit...taking into account control devices...the applicable regulated pollutant in an amount greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source..." The "other" units are those that are not "large" units. As such, the primary difference between the two categories is that "large" units are those that are still major (*i.e.,* greater than 100 percent of the major source threshold) after the application of controls, while the "other" units are those that are non-major (*i.e.,* less than or equal to 100 percent of the major source threshold) following the application of controls.

The federal regulations, at 40 CFR 64.5(a)(2), state the following with regard to submittal of a CAM Plan for "large pollutant-specific emissions units":

> "On or after April 20, 1998, the owner or operator shall submit information as part of an application for a significant permit revision under part 70 or 71 of this chapter, but only with respect to those pollutant-specific emissions units for which the proposed permit revision is applicable."

The regulations, at 40 CFR 64.5(b), state the following with regard to submittal of a CAM Plan for the "other pollutant-specific emissions units":

> *"...the owner or operator shall submit the information required...as part of an application for a renewal of a part 70 or part 71 permit."*

I. Background

A. Emissions Unit

Description:	OSB Rotary Dryers
Manufacturer:	MEC
Capacity:	45 OD tons/hr flakes
Facility:	Brookneal OSB 11795 Brookneal Highway (Hwy 501S) Gladys, VA 24554

B. Applicable Regulation, Emissions Limit, and Pre-CAM Monitoring Requirements

With regard to the four criteria listed above for a facility to be subject to the CAM rule, the following facts pertain to the Brookneal OSB Plant:

- The Brookneal OSB plant is a major source and has a Title V Permit, VA-30903.
- The Wellons Energy System/OSB Rotary Dryers (Emission Point ID 5600) are subject to existing Title V Permit limits. The Title V Permit was originally issued on January 6, 2003, and it expires on January 5, 2008. This submittal is being done as part of the renewal of the Title V Permit.
- The Wellons Energy System acts as a control device (thermal incineration) for the VOC and HAPs generated in the flake drying process. It is utilized to achieve compliance with the VOC emission limit.
- The pre-controlled, potential VOC and CO emission rate is above the major source threshold.

Based on these facts, the Wellons Energy System is subject to the CAM requirements for VOC and CO.

CAM Emissions limit: 5.89 lbs/hr and 25 tons per year VOC
0.2 lbs/MMBtu and 203.7 tons/yr CO

Pre-CAM Monitoring Requirements: Controlling Temperature > 1400°F as an hourly average (15-minute rolling basis)

C. Control Technology, Capture system, Bypass, Potential-to-Emit

Controls:	Wellons Energy System
Capture System:	Closed Duct System
Bypass:	In the event of a startup, shutdown, or malfunction, the dryer exhaust could be bypassed. However, during such periods, the process control function interlocks and will not allow processing of additional flakes until the bypass condition is eliminated. Periods of bypass are documented and reported as necessary.

PTE Before Control: > major source thresholds for CO and VOC

PTE After Control: 5.89 lbs/hr and 25 tons/yr VOC and 0.20 lb/MMBtu and 203.7 tons/yr CO (emission limit)

II. Monitoring Approach

A. Indicators: The Wellons Energy System serves as a thermal incineration device to control VOC and CO emissions generated during the flake drying process. Thermal incineration of the VOC and CO occurs given sufficient temperature and residence time. Since residence time is fixed by the physical size of the equipment involved, temperature is an appropriate indicator parameter to monitor.

B. Measurement Approach: The exhaust gases from the flake dryers are either returned directly to the Wellons for use as combustion air or as tempering air to the blend chamber to temper the Wellons exhaust. The quantity of dryer exhaust gases returning to the blend chamber is variable (controlled by a damper) and depends on the amount of tempering air required to blend the Wellons exhaust gases to that required by the process. As such, the temperature that the dryer exhaust gases are exposed to is either the master operating temperature or the blend chamber temperature depending on blend damper position. If the blend damper is completely closed, then all dryer exhaust gases are returned to the Wellons as combustion air and will be exposed to the master operating temperature within the Wellons. However, if the blend damper is open, then at least a portion of the exhaust gases from the dryers will be exposed to the blend chamber temperature with the remaining being sent to the Wellons for use as combustion air. Therefore, the controlling temperature will be either the master operating temperature of the Wellons (when the blend damper is closed) or the blend chamber temperature (when the blend damper is open). As such, this controlling temperature will be monitored and used as the indicator parameter.

The Wellons Energy System is equipped with a Programmable Logic Controller (PLC), with the capability of controlling and monitoring the indicator parameter. Recordkeeping and reporting of the indicator parameter will be managed using a dedicated computer equipped with a relational database (such as Wonderware's Industrial SQL Server Software) that will serve as the Data Acquisition System (DAS). Temperature measurements will be documented every 15 minutes. This data will be averaged over a 1-hour period on a 15-minute rolling basis. The 1-hour average (15 minute rolling basis) will be the value used to verify compliance with the minimum controlling temperature of 1400°F.

C. Indicator Range: The indicator range is chosen to be a controlling temperature greater than 1400°F as a 1-hour average (15 minute rolling basis).

D. Performance Criteria:

Data Representativeness	The data for determining the proposed indicator range was developed from onsite stack tests. Controlling temperature during normal operations is maintained above the proposed minimum.
Verification of Operational Status	The Wellons Energy System is equipped with a Programmable Logic Controller (PLC), with the capability of controlling and monitoring the temperature.
QA/QC Practices and Criteria	Multiple temperature probes are utilized to ensure accurate readings. Temperature probes are replaced as necessary.
Monitoring Frequency	Temperature measurements are documented at least every 15 minutes from data collected during this period.
Data Collection Procedures	Recordkeeping and reporting of the indicator parameter is managed using a dedicated computer equipped with a relational database (such as Wonderware's Industrial SQL Server Software) that serves as the Data Acquisition System (DAS).
Averaging Period	Temperature data is averaged over a 1-hour period on a 15 minute rolling basis.
Excursion	A 1-hour average value (15 minute rolling basis) below the minimum controlling temperature.

III. Response to Excursion

During normal operation, if the controlling temperature falls below the minimum requirement , the dryers are shutdown until the temperature excursion can be corrected.

JUSTIFICATION

I. Background

The pollutant specific emissions unit (PSEU) is the Wellons Energy System which serves as a thermal incinerator to control volatile organic compound (VOC) and CO emissions from the OSB Rotary Dryers.

II. Rationale for Selection of Performance Indicators

Thermal incineration of the VOC and CO occurs given sufficient temperature and residence time. Since residence time is fixed by the physical size of the equipment involved, temperature is an appropriate indicator parameter to monitor. The controlling temperature during normal operations is within the established range.

III. Rationale for Selection of Indicator Ranges

The indicator range was selected based on emission test data generated under normal operations at which compliance with the emission limits was demonstrated.

ATTACHMENT B

COMPLIANCE ASSURANCE MONITORING PLAN FOR THE UREA INJECTION SYTEM USED TO CONTROL NOx EMISSIONS FROM THE WELLONS ENERGY SYSTEM AT THE BROOKNEAL, VA OSB PLANT TITLE V PERMIT NO. VA-30903

Compliance Assurance Monitoring (CAM) Rule

The CAM rule is essentially a companion rule to Title V, requiring that control device operating parameters be monitored in order to demonstrate compliance with a specified emission limitation or standard. At 40 CFR 64.2(a), the CAM rule states the following:

> *"...the requirements of this part shall apply to a pollutant-specific emissions unit at a major source that is required to obtain a part 70 or 71 permit if the unit satisfies all of the following criteria:*
>
> *(4) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant (or surrogate thereof), other than an emission limitation or standard that is exempt under paragraph (b)(1) of this section;*
>
> *(5) The unit uses a control device to achieve compliance with any such emission limitation or standard; and*
>
> *(6) The unit has the potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source…"*

The CAM Rule defines two classes of emission units. These are "large pollutant-specific emissions units" and "other pollutant-specific emissions units". The "large" units are those, "...with the potential to emit...taking into account control devices...the applicable regulated pollutant in an amount greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source..." The "other" units are those that are not "large" units. As such, the primary difference between the two categories is that "large" units are those that are still major (*i.e.,* greater than 100 percent of the major source threshold) after the application of controls, while the "other" units are those that are non-major (*i.e.,* less than or equal to 100 percent of the major source threshold) following the application of controls.

The federal regulations, at 40 CFR 64.5(a)(2), state the following with regard to submittal of a CAM Plan for "large pollutant-specific emissions units":

> "On or after April 20, 1998, the owner or operator shall submit information as part of an application for a significant permit revision under part 70 or 71 of this chapter, but only with respect to those pollutant-specific emissions units for which the proposed permit revision is applicable."

The regulations, at 40 CFR 64.5(b), state the following with regard to submittal of a CAM Plan for the "other pollutant-specific emissions units":

ATTACHMENT B

"...the owner or operator shall submit the information required...as part of an application for a renewal of a part 70 or part 71 permit."

I. Background

A. Emissions Unit

Description: Wellons Energy System
Manufacturer: Wellons

Capacity: 240 MMBtu/hour

Facility: Brookneal OSB
11795 Brookneal Highway (Hwy 501S)
Gladys, VA 24554

B. Applicable Regulation, Emissions Limit, and Pre-CAM Monitoring Requirements

With regard to the four criteria listed above for a facility to be subject to the CAM rule, the following facts pertain to the Brookneal OSB Plant:

- The Brookneal OSB plant is a major source and has a Title V Permit, VA-30903.
- The Wellons Energy System (Emission Point ID 5600) is subject to existing Title V Permit limits. The Title V Permit was originally issued on January 6, 2003, and it expires on January 5, 2008. This submittal is being done as part of the renewal of the Title V Permit.
- The Wellons Energy System utilizes a control device (urea injection (Selective Non-Catalytic Reduction (SNCR)) to achieve compliance with the NO_x emission limit.
- The pre-controlled, potential NO_x emission rate is above the major source level of 100 tons per year.

Based on these facts, the urea injection (SNCR) system is subject to the CAM requirements for particulate matter.

CAM Emissions limit: 0.2 lbs/MM Btu (3-hour rolling average)

Pre-CAM Monitoring Requirements: Installation and operation of a urea injection system and NOx Continuous Emission Monitoring System (CEMS). NOx emissions less than 0.20 lbs/MMBtu (3-hour rolling average)

C. Control Technology, Capture system, Bypass, Potential-to-Emit

Controls: Nalco Fuel Tech – Urea Injection (SNCR)

Capture System: Closed System

Bypass: During startup/shutdown periods and when the Wellons Energy System combustion chamber temperature is less than 1300°F, the urea injection system is not utilized. Urea injection is designed to control NO_x emissions within a given temperature range which is optimal in the 1600 °F – 2100 °F range. However, limited NO_x control is achieved down to injection temperatures of less than 1400 °F.

PTE Before Control: >100 tpy

PTE After Control: 0.2 lbs/MM Btu and 203.7 tons/yr (emission limit)

II. Monitoring Approach

A. Indicators: The quantity of urea injected into the Wellons Energy System is controlled based on a calculated NO_x lb/MMBtu value obtained from utilizing a continuous emission monitoring (CEM) system for NOx and CO_2. As such, the NO_x lb/MMBtu value will be compared directly with the emission limit and utilized as the indicator parameter.

B. Measurement Approach: The continuous emission monitoring (CEM) system measures the NO_x and CO_2 concentration value (ppm_w) in the exhaust stream. These values are used to calculate the NO_x lb/MMBtu (used for control purposes) based on the carbon dioxide based F-factor, wet basis, using the following equation:

$$E = C_w F_c \frac{100}{\%CO_{2w}} \quad where$$

E = Pollutant Emission Rate (lb/MMBtu);
C_w = pollutant concentration, wet basis (lb/scf);
F_c = volume of combustion components per unit of heat content (scf/MM Btu);
$\%CO_{2w}$ = concentration of carbon dioxide on wet basis, %

and

ppm NO_x = 1.194×10^{-7} lb/scf
F_c (Wood) = 1830 scf/MMBtu

The Urea Injection System is equipped with a Programmable Logic Controller (PLC), with the capability of controlling and monitoring the indicator parameter. Recordkeeping and reporting of the indicator parameter will be managed using a dedicated computer equipped with a relational database (such as Wonderware's Industrial SQL Server Software) that will serve as the Data Acquisition System (DAS). The indicator parameter measurements will be documented every 15 minutes. This data will be averaged for each 1 hour period. The 3-hour rolling average will be the value used to verify compliance with the lb NO_x/MMBtu emission limit.

C. Indicator Range: The indicator range is chosen to be less than 0.20 lb NO_x/MMBtu on a 3-hour rolling average.

Under normal operating conditions this provides a direct indicator of compliance with the emission limit. However, due to the fact that the CO_2 value is contained in the denominator of the equation, during startup and shutdown scenarios, the

NO_x lb/MMBtu value is not an appropriate indicator of NO_x lb/hr emissions since CO_2 goes to zero (during shutdown) and begins at zero (during startup). Under these scenarios, this produces the potential for an infinite lb/MM Btu value. However, during startup and shutdown periods, NO_x emissions are minimal compared to normal operations since the quantity of fuel combusted and the air flow required for combustion are much less than during normal operations. Therefore, this method will not be utilized during startup and shutdown scenarios and these periods will be documented for exclusion from the averaging period.

D. Performance Criteria:

Data Representativeness	The proposed method provides a direct measurement of the pollutant concentration with a means to correlate to the data collected to the emission limit of concern. Data during normal operations are within the established range.
Verification of Operational Status	Operation of the urea injection system is controlled based on the calculated NO_x lb/MMBtu value obtained from utilizing a continuous emission monitoring (CEM) system. The urea injection system is controlled by a Programmable Logic Controller (PLC) with the capability of controlling and monitoring the indicator parameter.
QA/QC Practices and Criteria	Daily zero and span checks are performed on the continuous emission monitoring (CEM) system. Quarterly system calibration and maintenance checks are contracted to an outside vendor.
Monitoring Frequency	NOx and CO_2 concentrations (ppm_w) are continuously monitored and the indicator parameter measurements (NOx lb/MMBtu) are documented every 15 minutes.
Data Collection Procedures	Recordkeeping and reporting of the indicator parameter is managed using a dedicated computer equipped with a relational database (such as Wonderware's Industrial SQL Server Software) that serves as the Data Acquisition System (DAS).
Averaging Period	This data is averaged over a 3-hour rolling average period. A new 3-hour average is calculated once every hour.
Excursion	A 3-hour rolling average value above 0.20 lbs NOx/MMBtu.

III. Response to Excursion

During normal operation, the presence of a NO_x lb/MMBtu outside the established range indicate performance issues with the urea injection system that require corrective actions. During such events, an investigation will be initiated to determine the cause of the excursion and corrective actions taken as soon as practicable to correct the cause of the excursion. All excursions will be documented and reported as necessary.

JUSTIFICATION

I. Background

The pollutant specific emissions unit (PSEU) is an urea injection system (SNCR) used to control nitrogen oxide (NO_x) emissions from the Wellons Energy System.

II. Rationale for Selection of Performance Indicators

The proposed method provides a direct measurement of the pollutant concentration with a means to correlate to the data collected to the emission limit of concern. Data during normal operations are within the established range.

III. Rationale for Selection of Indicator Ranges

The indicator range was selected based on currently established permit requirements and emission test data generated under normal operations at which compliance with the emission limit was demonstrated.

ATTACHMENT C

COMPLIANCE ASSURANCE MONITORING PLAN FOR THE ELECTROSTATIC PRECIPITATOR USED TO CONTROL PARTICULATE EMISSIONS FROM THE WELLONS ENERGY SYSTEM AND OSB ROTARY DRYERS AT THE BROOKNEAL, VA OSB PLANT TITLE V PERMIT NO. VA-30903

Compliance Assurance Monitoring (CAM) Rule

The CAM rule is essentially a companion rule to Title V, requiring that control device operating parameters be monitored in order to demonstrate compliance with a specified emission limitation or standard. At 40 CFR 64.2(a), the CAM rule states the following:

> *"...the requirements of this part shall apply to a pollutant-specific emissions unit at a major source that is required to obtain a part 70 or 71 permit if the unit satisfies all of the following criteria:*
>
> *(1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant (or surrogate thereof), other than an emission limitation or standard that is exempt under paragraph (b)(1) of this section;*
>
> *(2) The unit uses a control device to achieve compliance with any such emission limitation or standard; and*
>
> *(3) The unit has the potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source..."*

The CAM Rule defines two classes of emission units. These are "large pollutant-specific emissions units" and "other pollutant-specific emissions units". The "large" units are those, "...with the potential to emit...taking into account control devices...the applicable regulated pollutant in an amount greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source..." The "other" units are those that are not "large" units. As such, the primary difference between the two categories is that "large" units are those that are still major (*i.e.,* greater than 100 percent of the major source threshold) after the application of controls, while the "other" units are those that are non-major (*i.e.,* less than or equal to 100 percent of the major source threshold) following the application of controls.

The federal regulations, at 40 CFR 64.5(a)(2), state the following with regard to submittal of a CAM Plan for "large pollutant-specific emissions units":

> "On or after April 20, 1998, the owner or operator shall submit information as part of an application for a significant permit revision under part 70 or 71 of this chapter, but only with respect to those pollutant-specific emissions units for which the proposed permit revision is applicable."

The regulations, at 40 CFR 64.5(b), state the following with regard to submittal of a CAM Plan for the "other pollutant-specific emissions units":

> *"...the owner or operator shall submit the information required...as part of an application for a renewal of a part 70 or part 71 permit."*

I. Background

A. Emissions Unit

Description:	Wellons Energy System/OSB Rotary Dryers
Manufacturer:	Wellons – Energy System /MEC – Rotary Dryers
Capacity:	240 MMBtu/hour – Wellons; 45 OD tons/hr - Dryers
Facility:	Brookneal OSB 11795 Brookneal Highway (Hwy 501S) Gladys, VA 24554

B. Applicable Regulation, Emissions Limit, and Pre-CAM Monitoring Requirements

With regard to the four criteria listed above for a facility to be subject to the CAM rule, the following facts pertain to the Brookneal OSB Plant:

- The Brookneal OSB plant is a major source and has a Title V Permit, VA-30903.
- The Wellons Energy System/OSB Rotary Dyers (Emission Point ID 5600) is subject to existing Title V Permit limits. The Title V Permit was originally issued on January 6, 2003, and it expires on January 5, 2008. This submittal is being done as part of the renewal of the Title V Permit.
- The Wellons Energy System/OSB Rotary Dryers utilize a control device (electrostatic precipitator) to achieve compliance with the particulate matter and opacity emission limits.
- The pre-controlled, potential PM/PM_{10} emission rate is above the major source level of 100 tons per year.

Based on these facts, the electrostatic precipitator is subject to the CAM requirements for particulate matter.

CAM Emissions limit: 0.07 lb/MMBtu (PM)
71.3 tons per year

Pre-CAM Monitoring Requirements: Continuous opacity monitoring, continuously monitor the primary and secondary current and voltage of each ESP fields.

C. Control Technology, Capture system, Bypass, Potential-to-Emit

Controls:	Preciptech - Electrostatic Precipitator
Capture System:	Closed Duct System
Bypass:	In the event of a startup, shutdown, or malfunction, the ESP could be bypassed. Periods of bypass are documented and reported as necessary.

PTE Before Control: 336 lbs/hr or 1472 tons/yr PM (based on control efficiency of 95% with post control potential PM emissions of 16.8 lbs/hr)

PTE After Control: 0.07 lb/MM Btu, 71.3 tons/yr PM/PM_{10} (emission limits)

II. Monitoring Approach

A. Indicators: ESP performance is monitored through the use of a continuous opacity monitor (COM). An opacity value of less than 10% should provide reasonable assurance of compliance with the particulate emission rate.

B. Measurement Approach: The continuous opacity monitor (COM) measures and records an opacity value every 10 seconds. These values are used to compute the 6-minute block average. The opacity measurements and records are collected and maintained in a computer based Data Acquisition System (DAS).

C. Indicator Range: Any opacity reading in excess of 10% as a 6-minute block average would be considered an excursion (except during startup, shutdown, or malfunction events).

D. Performance Criteria:

Data Representativeness	The presence of opacity above 10% is indicative of ESP performance issues that require corrective actions. Data during normal operations are within the established range. Under these normal operating conditions compliance with the PM emission limit has been demonstrated.
Verification of Operational Status	The ESP and COM are equipped with a Programmable Logic Controller (PLC), with the capability of controlling and monitoring ESP performance and opacity observations.
QA/QC Practices and Criteria	Daily zero and span checks are performed on the continuous opacity monitoring (COM) system. Quarterly system calibration and maintenance checks are performed by an outside contracted vendor.
Monitoring Frequency	The continuous opacity monitor (COM) measures and records an opacity value every 10 seconds. These values are used to compute a 6 minute block average.
Data Collection Procedures	Recordkeeping and reporting of the indicator parameter is managed using a dedicated

	computer equipped with a relational database (such as Wonderware's Industrial SQL Server Software) that serves as the Data Acquisition System (DAS).
Averaging Period	The opacity data is averaged over a 6-minute block period.
Excursion	A 6-minute block average opacity value in excess of 10%.

III. Response to Excursion

During normal operation, the presence of opacity outside the established range indicates ESP performance issues that require corrective actions. During such events, an investigation will be initiated to determine the cause of the excursion and corrective actions taken as soon as practicable to correct the cause of the excursion. All excursions will be documented and reported as necessary.

JUSTIFICATION

I. Background

The pollutant specific emissions unit (PSEU) is an electrostatic precipitator used to control particulate emissions from the Wellons Energy System/OSB Rotary Dryers.

II. Rationale for Selection of Performance Indicators

The CAM indicator selected is the opacity of the ESP exhaust. Opacity was selected as the performance indicator because, as the opacity of the ESP emissions increases, it can be reasonably assumed that PM emissions increase. Based on performance tests conducted previously, an opacity of less than 10% should provide reasonable assurance of compliance with the emission limit.

III. Rationale for Selection of Indicator Ranges

The indicator range was selected based on currently established permit requirements.

ATTACHMENT D

COMPLIANCE ASSURANCE MONITORING PLAN FOR THE RTO/TCO USED TO CONTROL VOC EMISSIONS FROM THE OSB PRESS AT THE BROOKNEAL, VA OSB PLANT TITLE V PERMIT NO. VA-30903

Compliance Assurance Monitoring (CAM) Rule

The CAM rule is essentially a companion rule to Title V, requiring that control device operating parameters be monitored in order to demonstrate compliance with a specified emission limitation or standard. At 40 CFR 64.2(a), the CAM rule states the following:

> *"...the requirements of this part shall apply to a pollutant-specific emissions unit at a major source that is required to obtain a part 70 or 71 permit if the unit satisfies all of the following criteria:*
>
> *(1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant (or surrogate thereof), other than an emission limitation or standard that is exempt under paragraph (b)(1) of this section;*
>
> *(2) The unit uses a control device to achieve compliance with any such emission limitation or standard; and*
>
> *(3) The unit has the potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source…"*

The CAM Rule defines two classes of emission units. These are "large pollutant-specific emissions units" and "other pollutant-specific emissions units". The "large" units are those, "...with the potential to emit...taking into account control devices...the applicable regulated pollutant in an amount greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source..." The "other" units are those that are not "large" units. As such, the primary difference between the two categories is that "large" units are those that are still major (*i.e.,* greater than 100 percent of the major source threshold) after the application of controls, while the "other" units are those that are non-major (*i.e.,* less than or equal to 100 percent of the major source threshold) following the application of controls.

The federal regulations, at 40 CFR 64.5(a)(2), state the following with regard to submittal of a CAM Plan for "large pollutant-specific emissions units":

> "On or after April 20, 1998, the owner or operator shall submit information as part of an application for a significant permit revision under part 70 or 71 of this chapter, but only with respect to those pollutant-specific emissions units for which the proposed permit revision is applicable."

The regulations, at 40 CFR 64.5(b), state the following with regard to submittal of a CAM Plan for the "other pollutant-specific emissions units":

ATTACHMENT D

"...the owner or operator shall submit the information required...as part of an application for a renewal of a part 70 or part 71 permit."

ATTACHMENT D

I. Background

A. Emissions Unit

Description: OSB Press

Manufacturer: Washington Iron Works

Capacity: 64 MSF/hr (3/8" Basis)

Facility: Brookneal OSB
11795 Brookneal Highway (Hwy 501S)
Gladys, VA 24554

B. Applicable Regulation, Emissions Limit, and Pre-CAM Monitoring Requirements

- The Brookneal OSB plant is a Title V major source and has a Title V Permit, VA-30903.
- The Press (Emission Point ID 7890) is subject to existing Title V Permit limits. The Title V Permit became effective on January 6, 2003, and it expires on January 5, 2008. This submittal is being done as part of the renewal of the Title V Permit.
- The Thermal Catalytic Oxidizer (TCO)/Regenerative Thermal Oxidizer (RTO) is the control device for the VOC emissions generated in the board pressing operation. It is utilized to achieve compliance with the VOC mass emission limits.
- The pre-controlled, potential VOC emission rate is above the Title V major source threshold.

Current Emissions limit: 2.09 lbs/hr and 8.9 tons/yr VOC

Current Monitoring Requirements: Annual catalytic activity analysis. Hourly average combustion chamber temperature on a 15 minute rolling basis.

C. Control Technology, Capture system, Bypass, Potential-to-Emit

Controls: Thermal Catalytic Oxidizer (TCO)/Regenerative Thermal Oxidizer (RTO)

Capture System: Closed Duct System

Bypass: In the event of a malfunction, the press exhaust can be bypassed for a limited time to clear the existing load from the press. However, during such periods, the process control function interlocks and will not allow processing of additional press loads until the bypass condition is eliminated. Periods of bypass are documented and reported as necessary.

PTE Before Control: 42 lbs/hr or 183 tons/yr VOC (based on control efficiency of 95% with post control potential emissions as indicated below)

PTE After Control: 2.09 lbs/hr and 8.9 tons/yr VOC (emission limit)

II. Monitoring/Maintenance Approach

A. Indicators: The RTO/TCO serves as the control device for VOC emissions generated during the board pressing operation. Thermal incineration of the VOC occurs given sufficient temperature and residence time. Catalytic incineration of VOC also occurs given sufficient catalytic activity, temperature, and residence time. Since residence time is fixed by the physical size of the equipment involved and the flow rate of exhaust gases, temperature (during thermal operation) and temperature plus catalyst activity (during catalytic operation) would be the appropriate indicator parameters to monitor.

B. Monitoring/Measurement Approach:
The current approach of continuously monitoring the combustion chamber temperature along with annual catalytic activity analysis (used to assess the activity of the catalyst) will be supplemented with actual compliance testing in an effort to develop a correlation between results obtained from catalytic activity to the results obtained from actual compliance testing. These activities are conducted annually and will continue until such time that a predictive correlation can be established between results obtained from the catalytic activity analysis and those obtained from compliance testing. The temperature at which compliance is demonstrated (based on compliance testing) will be used as the compliance indicator parameter during the period between catalytic activity analysis/compliance testing. The RTO/TCO is equipped with a Programmable Logic Controller (PLC), with the capability of controlling and monitoring the temperature. Recordkeeping and reporting of this indicator parameter will be managed using a dedicated computer equipped with a relational database (such as Wonderware's Industrial SQL Server Software) that will serve as the Data Acquisition System (DAS). Temperature measurements will be documented at least every 15 minutes from data collected during this period. This data will be averaged over a 1-hour period on a 15 minute rolling basis. The 1-hour average will be the value used to verify compliance with the minimum combustion temperature established during compliance tests.

To ensure that the RTO/TCO is operating properly, the following system components are monitored. The RTO/TCO has several components that are critical to proper operation of the unit. These components include the natural gas burners, canister dampers, hydraulic unit that controls damper actuation, and the exhaust fan which is used to maintain a stipulated negative pressure within the primary equalization chamber (PEC). To ensure the natural gas burners are functioning properly, the natural gas and combustion air mixtures are set by the RTO/TCO manufacturer initially and those set points are subsequently maintained. The natural gas supply pressure is continuously monitored and the burners are continuously monitored for flame presence. In addition, the combustion chamber

temperature is continuously monitored. In the event of loss of natural gas supply pressure, loss of burner flame, or loss of combustion chamber temperature, a visual alarm on the operator console would alert them to such condition and appropriate corrective actions would be implemented. Any of these conditions would/could have the potential for shutting the RTO/TCO down. In such events, the process function is interlocked such that the press can not operate until these alarms have been cleared and the 15 minute average retention chamber temperature is above the stipulated set point that has been established based on compliance testing.

Each RTO/TCO canister is equipped with a hydraulically actuated inlet and outlet damper which directs the process gas stream through the unit. These dampers cycle in a defined sequence by directing the process gas stream up through the media bed into the retention chamber and back through the media bed (for heat recovery) prior to be exhausted to the atmosphere. The damper positions are continuously monitored to ensure proper operation. If any of these dampers fail to make the required position within the specified time, an alarm would alert operators to such condition and appropriate corrective actions would be implemented. In addition to monitoring damper position which could indicate a loss of hydraulic pressure, the fluid level in the hydraulic unit is constantly monitored. In the event of a loss of pressure and/or liquid level, a visual alarm on the operator console would alert them to such condition and appropriate corrective actions would be implemented. If these conditions result in the RTO/TCO being shutdown, the process function is interlocked such that the press can not operate until these alarms have been cleared and the 15 minute average retention chamber temperature is above the stipulated set point that has been established based on compliance testing.

The exhaust fan is equipped with a variable frequency drive motor that is utilized to maintain a specified negative pressure within the primary equalization chamber (PEC). The fan speed and its resultant negative pressure are continuously monitored. Operation outside established limits will result in an alarm that would alert operators to such condition and appropriate corrective actions would be implemented. If these conditions result in the RTO/TCO being shutdown, the process function is interlocked such that the press can not operate until these alarms have been cleared and the 15 minute average retention chamber temperature is above the stipulated set point that has been established based on compliance testing.

During the time period when the unit is shutdown (and during any annual maintenance outage where the TCO/RTO is shutdown) to collect the catalytic media samples for subsequent catalytic activity analysis, an inspection of the unit is conducted. The damper seals are inspected for proper seating and are repaired/replaced as necessary. The media beam supports and other exposed metal surfaces are inspected for deformation/deterioration and corrective actions taken as required. The insulation material is inspected for deterioration and replaced as necessary. At least annually the inlet and outlet ductwork is cleaned of buildup to reduce the potential for fires during normal operation.

C. Indicator Range: The minimum combustion chamber temperature will be established based on the average combustion chamber temperature at which the unit was operating during the most recent compliance test during which compliance was demonstrated. The averaging period for the indicator parameter will also be based on the compliance test period, 1-hour average on a 15-minute rolling basis. An appropriate averaging period lessens the impact to normal process variability. The current value of 1100 ^{o}F was chosen based on emission testing conducted in October 2005 (copy submitted to VADEQ on November 7, 2005) when the average VOC emission rate was determined to be 1.59 lbs/hr at an average combustion chamber temperature of 1100 ^{o}F.

D. Performance Criteria:

Data Representativeness	The data for determining the proposed indicator range was developed from onsite stack tests. Combustion chamber temperature during normal operations is maintained above the proposed minimum.
Verification of Operational Status	The RTO/TCO is equipped with a Programmable Logic Controller (PLC), with the capability of controlling and monitoring the temperature.
QA/QC Practices and Criteria	Multiple temperature probes are utilized to ensure accurate readings. Temperature probes are replaced as necessary.
Monitoring Frequency	Temperature measurements are documented at least every 15 minutes from data collected during this period.
Data Collection Procedures	Recordkeeping and reporting of this indicator parameter is managed using a dedicated computer equipped with a relational database (such as Wonderware's Industrial SQL Server Software) that serves as the Data Acquisition System (DAS).
Averaging Period	Temperature data is averaged over a 1-hour period on a 15 minute rolling basis.
Excursion	A 1-hour average value (15 minute rolling basis) below the minimum combustion chamber temperature.

III. Response to Excursion

During normal operation, if the average combustion chamber temperature falls below the minimum requirement, the press is shutdown until the temperature excursion can be corrected. In addition, if any other alarms/conditions exist that result in the unit being shutdown, the process function is interlocked such that the press can not operate until these alarms have been cleared and the 15 minute average retention chamber temperature is above the stipulated set point that has been established based on compliance testing.

JUSTIFICATION

I. Rationale for Selection of Performance Indicators

Thermal incineration of the VOC occurs given sufficient temperature and residence time. Catalytic incineration of VOC also occurs given sufficient catalytic activity, temperature, and residence time. Since residence time is fixed by the physical size of the equipment involved, temperature (during thermal operation) and temperature plus catalyst activity (during catalytic operation) would be the appropriate indicator parameters to monitor.

II. Rationale for Selection of Indicator Ranges

The indicator parameter will be/was selected based on emission test data generated under normal operations at which compliance with the emission limits was demonstrated.

ATTACHMENT E

COMPLIANCE ASSURANCE MONITORING PLAN FOR THE BAGHOUSE USED TO CONTROL PARTICULATE EMISSIONS FROM THE SANDER AT THE BROOKNEAL, VA OSB PLANT TITLE V PERMIT NO. VA-30903

Compliance Assurance Monitoring (CAM) Rule

The CAM rule is essentially a companion rule to Title V, requiring that control device operating parameters be monitored in order to demonstrate compliance with a specified emission limitation or standard. At 40 CFR 64.2(a), the CAM rule states the following:

> *"...the requirements of this part shall apply to a pollutant-specific emissions unit at a major source that is required to obtain a part 70 or 71 permit if the unit satisfies all of the following criteria:*
>
> *(1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant (or surrogate thereof), other than an emission limitation or standard that is exempt under paragraph (b)(1) of this section;*
>
> *(2) The unit uses a control device to achieve compliance with any such emission limitation or standard; and*
>
> *(3) The unit has the potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source…"*

The CAM Rule defines two classes of emission units. These are "large pollutant-specific emissions units" and "other pollutant-specific emissions units". The "large" units are those, "...with the potential to emit...taking into account control devices...the applicable regulated pollutant in an amount greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source..." The "other" units are those that are not "large" units. As such, the primary difference between the two categories is that "large" units are those that are still major (*i.e.,* greater than 100 percent of the major source threshold) after the application of controls, while the "other" units are those that are non-major (*i.e.,* less than or equal to 100 percent of the major source threshold) following the application of controls.

The federal regulations, at 40 CFR 64.5(a)(2), state the following with regard to submittal of a CAM Plan for "large pollutant-specific emissions units":

> "On or after April 20, 1998, the owner or operator shall submit information as part of an application for a significant permit revision under part 70 or 71 of this chapter, but only with respect to those pollutant-specific emissions units for which the proposed permit revision is applicable."

The regulations, at 40 CFR 64.5(b), state the following with regard to submittal of a CAM Plan for the "other pollutant-specific emissions units":

> *"...the owner or operator shall submit the information required...as part of an application for a renewal of a part 70 or part 71 permit."*

ATTACHMENT E

I. Background

A. Emissions Unit

Description: Sander

Manufacturer: Globe

Capacity: 36 MSF/hr

Facility: Brookneal OSB
11795 Brookneal Highway (Hwy 501S)
Gladys, VA 24554

B. Applicable Regulation, Emissions Limit, and Pre-CAM Monitoring Requirements

With regard to the four criteria listed above for a facility to be subject to the CAM rule, the following facts pertain to the Brookneal OSB Plant:

- The Brookneal OSB plant is a major source and has a Title V Permit, VA-30903.
- The sander (Emission Point ID 9500) is subject to existing Title V Permit limits. The Title V Permit was originally issued on January 6, 2003, and it expires on January 5, 2008. This submittal is being done as part of the renewal of the Title V Permit.
- The sander utilizes a control device (baghouse) to achieve compliance with the particulate matter and opacity emission limits.
- The pre-controlled, potential PM/PM_{10} emission rate is above the major source level of 100 tons per year.

Based on these facts, the baghouse is subject to the CAM requirements for particulate matter.

CAM Emissions limit: 0.01 gr/dscf 8.6 tons per year

Pre-CAM Monitoring Requirements: Weekly visible emissions observations

C. Control Technology, Capture system, Bypass, Potential-to-Emit

Controls: Baghouse

Capture System: Closed Duct System

Bypass: In the event of a startup, shutdown, or malfunction, the baghouse could be bypassed. Periods of bypass are documented and reported as necessary.

PTE Before Control: >major source thresholds for PM/PM_{10}

PTE After Control: 0.01 gr/dscf 8.6 tons/yr PM/PM_{10} (emission limits)

II. Monitoring Approach

A. Indicators: Baghouse performance is monitored through the use of visible emissions observations. The presence of any visible emissions from a properly maintained and operating baghouse is an appropriate indicator that a bag rupture or leak is occurring and that corrective action is necessary.

B. Measurement Approach: A trained employee familiar with normal process operations and the appearance of the exhaust from this source will be responsible for observing and recording visible emissions observations using Method 22 like procedures (for at least 1 minute) on a daily basis when the sander system is operating.

C. Indicator Range: The presence of visible emissions would be considered an excursion that requires corrective action.

D. Performance Criteria:

Data Representativeness	The presence of any visible emissions from a properly maintained and operating baghouse is an appropriate indicator that a bag rupture or leak is occurring and that corrective action is necessary.
Verification of Operational Status	Not Applicable
QA/QC Practices and Criteria	The observer will be familiar with Method 22 and will follow Method 22 like procedures when conducting the observation.
Monitoring Frequency	The exhaust from the baghouse will be observed on a daily basis using Method 22 like procedures for at least 1 minute.
Data Collection Procedures	Visible emissions observations will be maintained in a logbook.
Averaging Period	Not Applicable
Excursion	The presence of visible emissions.

III. Response to Excursion

During normal operation, the presence of visible emissions indicates baghouse performance issues that require corrective actions. During such events, an investigation will be initiated to determine the cause of the excursion and corrective actions taken as soon as practicable to correct the cause of the excursion. All excursions will be documented and reported as necessary.

JUSTIFICATION

I. Background

The pollutant specific emissions unit (PSEU) is a baghouse used to control particulate emissions from the sander.

II. Rationale for Selection of Performance Indicators

The CAM indicator selected is the presence of visible emissions in the baghouse exhaust. The presence of visible emissions was selected as the performance indicator since a properly operating baghouse should result in no visible emissions present in the exhaust. Presence of no visible emissions should provide reasonable assurance of compliance with the emission limits.

III. Rationale for Selection of Indicator Ranges

The presence of no visible emissions is indicative of an intact and properly operating baghouse. A properly operating baghouse should provide reasonable assurance of compliance with the emission limits.